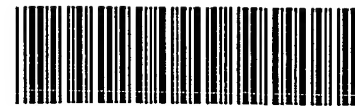


RAW SEQUENCE LISTING

**The Biotechnology Systems Branch of the Scientific and Technical
Information Center (STIC) no errors detected.**

Application Serial Number: 10/529,749
Source: TFWO
Date Processed by STIC: 09/08/2006

ENTERED



IFWO

RAW SEQUENCE LISTING

DATE: 09/08/2006

PATENT APPLICATION: US/10/529,749

TIME: 08:55:25

Input Set : A:\10529749.txt

Output Set: N:\CRF4\09082006\J529749.raw

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3 <110> APPLICANT: Japan Science and Technology Agency
4     KURODA, Shunichi
5     TANIZAWA, Katsuyuki
6     KONDO, Akihiko
7     UEDA, Masakazu
8     SENO, Masaharu
10 <120> TITLE OF INVENTION: Hollow Protein Nanoparticles, and Drug Using the Same
12 <130> FILE REFERENCE: 1035-579 / P023P08US
14 <140> CURRENT APPLICATION NUMBER: US 10/529,749
15 <141> CURRENT FILING DATE: 2005-03-30
17 <150> PRIOR APPLICATION NUMBER: PCT/JP2003/015003
18 <151> PRIOR FILING DATE: 2003-11-25
20 <150> PRIOR APPLICATION NUMBER: JP 2002-339925
21 <151> PRIOR FILING DATE: 2002-11-22
23 <160> NUMBER OF SEQ ID NOS: 6
25 <170> SOFTWARE: MS Word
27 <210> SEQ ID NO: 1
28 <211> LENGTH: 1218
29 <212> TYPE: DNA
30 <213> ORGANISM: Hepatitis B virus
32 <220> FEATURE:
33 <221> NAME/KEY: CDS
34 <222> LOCATION: (1)..(1218)
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38 Met Arg Ser Leu Leu Ile Leu Val Leu Cys Phe Leu Pro Leu Ala Ala
39   1           5           10           15
41 ttg ggt aag gtt cga caa ggc atg ggg acg aat ctt tct gtt ccc aat      96
42 Leu Gly Lys Val Arg Gln Gly Met Gly Thr Asn Leu Ser Val Pro Asn
43   20           25           30
45 cct ctg gga ttc ttt ccc gat cac cag ttg gac cct gcg ttc gga gcc      144
46 Pro Leu Gly Phe Phe Pro Asp His Gln Leu Asp Pro Ala Phe Gly Ala
47   35           40           45
49 aac tca aac aat cca gat tgg gac ttc aac ccc aac aag gat caa tgg      192
50 Asn Ser Asn Asn Pro Asp Trp Asp Phe Asn Pro Asn Lys Asp Gln Trp
51   50           55           60
53 cca gag gca aat cag gta gga gcg gga gca ttc ggg cca ggg ttc acc      240
54 Pro Glu Ala Asn Gln Val Gly Ala Gly Ala Phe Gly Pro Gly Phe Thr
55   65           70           75           80
57 cca cca cac ggc ggt ctt ttg ggg tgg agc cct cag gct cag ggc ata      288
58 Pro Pro His Gly Gly Leu Leu Gly Trp Ser Pro Gln Ala Gln Gly Ile
59   85           90           95
61 ttg aca aca gtg cca gca gca cct cct cct gcc tcc acc aat cgg cag      336

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RAW SEQUENCE LISTING

DATE: 09/08/2006

PATENT APPLICATION: US/10/529,749

TIME: 08:55:25

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Output Set: N:\CRF4\09082006\J529749.raw

62	Leu	Thr	Thr	Val	Pro	Ala	Ala	Pro	Pro	Pro	Ala	Ser	Thr	Asn	Arg	Gln	
63				100					105					110			
65	tca	gga	aga	cag	cct	act	ccc	atc	tct	cca	cct	cta	aga	gac	agt	cat	384
66	Ser	Gly	Arg	Gln	Pro	Thr	Pro	Ile	Ser	Pro	Pro	Leu	Arg	Asp	Ser	His	
67			115					120					125				
69	cct	cag	gcc	atg	cag	tgg	aat	tcc	aca	aca	ttc	cac	caa	gct	ctg	cta	432
70	Pro	Gln	Ala	Met	Gln	Trp	Asn	Ser	Thr	Thr	Phe	His	Gln	Ala	Leu	Leu	
71			130				135						140				
73	gat	ccc	aga	gtg	agg	ggc	cta	tat	ttt	cct	gct	ggg	ggc	tcc	agt	tcc	480
74	Asp	Pro	Arg	Val	Arg	Gly	Leu	Tyr	Phe	Pro	Ala	Gly	Gly	Ser	Ser	Ser	
75	145					150				155					160		
77	gga	aca	gta	aac	cct	gtt	ccg	act	act	gcc	tca	ccc	ata	tct	ggg	gac	528
78	Gly	Thr	Val	Asn	Pro	Val	Pro	Thr	Thr	Ala	Ser	Pro	Ile	Ser	Gly	Asp	
79				165						170					175		
81	cct	gca	ccg	aac	atg	gag	aac	aca	aca	tca	gga	ttc	cta	gga	ccc	ctg	576
82	Pro	Ala	Pro	Asn	Met	Glu	Asn	Thr	Thr	Ser	Gly	Phe	Leu	Gly	Pro	Leu	
83			180					185					190				
85	ctc	gtg	tta	cag	gcg	ggg	ttt	ttc	ttg	ttg	aca	aga	atc	ctc	aca	ata	624
86	Leu	Val	Leu	Gln	Ala	Gly	Phe	Phe	Leu	Leu	Thr	Arg	Ile	Leu	Thr	Ile	
87			195				200						205				
89	cca	cag	agt	cta	gac	tcg	tgg	tgg	act	tct	ctc	aat	ttt	cta	ggg	gga	672
90	Pro	Gln	Ser	Leu	Asp	Ser	Trp	Trp	Thr	Ser	Leu	Asn	Phe	Leu	Gly	Gly	
91			210				215					220					
93	gca	ccc	acg	tgt	cct	ggc	caa	aat	tcg	cag	tcc	cca	acc	tcc	aat	cac	720
94	Ala	Pro	Thr	Cys	Pro	Gly	Gln	Asn	Ser	Gln	Ser	Pro	Thr	Ser	Asn	His	
95	225					230				235					240		
97	tca	cca	acc	tct	tgt	cct	cca	att	tgt	cct	ggc	tat	cgc	tgg	atg	tgt	768
98	Ser	Pro	Thr	Ser	Cys	Pro	Pro	Ile	Cys	Pro	Gly	Tyr	Arg	Trp	Met	Cys	
99				245						250					255		
101	ctg	cgg	cgt	ttt	atc	ata	ttc	ctc	ttc	atc	ctg	ctg	cta	tgc	ctc	atc	816
102	Leu	Arg	Arg	Phe	Ile	Ile	Phe	Leu	Phe	Ile	Leu	Leu	Leu	Cys	Leu	Ile	
103				260					265					270			
105	ttc	ttg	ttg	gtt	ctt	ctg	gac	tac	caa	ggg	atg	ttg	ccc	gtt	tgt	cct	864
106	Phe	Leu	Leu	Val	Leu	Leu	Asp	Tyr	Gln	Gly	Met	Leu	Pro	Val	Cys	Pro	
107			275				280						285				
109	cta	ctt	cca	gga	aca	tca	acc	acc	agc	acg	ggg	cca	tgc	aag	acc	tgc	912
110	Leu	Leu	Pro	Gly	Thr	Ser	Thr	Thr	Ser	Thr	Gly	Pro	Cys	Lys	Thr	Cys	
111			290				295					300					
113	acg	att	cct	gct	caa	gga	acc	tct	atg	ttt	ccc	tct	tgt	tgc	tgt	aca	960
114	Thr	Ile	Pro	Ala	Gln	Gly	Thr	Ser	Met	Phe	Pro	Ser	Cys	Cys	Cys	Thr	
115	305				310					315					320		
117	aaa	cct	tcg	gac	gga	aac	tgc	act	tgt	att	ccc	atc	cca	tca	tcc	tgg	1008
118	Lys	Pro	Ser	Asp	Gly	Asn	Cys	Thr	Cys	Ile	Pro	Ile	Pro	Ser	Ser	Trp	
119				325						330					335		
121	gct	ttc	gca	aga	ttc	cta	tgg	gag	tgg	gcc	tca	gtc	cgt	ttc	tcc	tgg	1056
122	Ala	Phe	Ala	Arg	Phe	Leu	Trp	Glu	Trp	Ala	Ser	Val	Arg	Phe	Ser	Trp	
123			340					345					350				
125	ctc	agt	tta	cta	gtg	cca	ttt	gtt	cag	tgg	ttc	gta	ggg	ctt	tcc	ccc	1104
126	Leu	Ser	Leu	Leu	Val	Pro	Phe	Val	Gln	Trp	Phe	Val	Gly	Leu	Ser	Pro	

RAW SEQUENCE LISTING

DATE: 09/08/2006

PATENT APPLICATION: US/10/529,749

TIME: 08:55:25

Input Set : A:\10529749.txt

Output Set: N:\CRF4\09082006\J529749.raw

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129 act gtt tgg ctt tca gtt ata tgg atg atg tgg tat tgg ggg cca agt 1152
130 Thr Val Trp Leu Ser Val Ile Trp Met Met Trp Tyr Trp Gly Pro Ser
131          370          375          380
133 ctg tac aac atc ttg agt ccc ttt tta cct cta tta cca att ttc ttt 1200
134 Leu Tyr Asn Ile Leu Ser Pro Phe Leu Pro Leu Leu Pro Ile Phe Phe
135 385          390          395          400
137 tgt ctt tgg gta tat att 1218
138 Cys Leu Trp Val Tyr Ile
139          405
142 <210> SEQ ID NO: 2
143 <211> LENGTH: 406
144 <212> TYPE: PRT
145 <213> ORGANISM: Hepatitis B virus
147 <400> SEQUENCE: 2
148 Met Arg Ser Leu Leu Ile Leu Val Leu Cys Phe Leu Pro Leu Ala Ala
149 1 5 10 15
151 Leu Gly Lys Val Arg Gln Gly Met Gly Thr Asn Leu Ser Val Pro Asn
152 20 25 30
154 Pro Leu Gly Phe Phe Pro Asp His Gln Leu Asp Pro Ala Phe Gly Ala
155 35 40 45
157 Asn Ser Asn Asn Pro Asp Trp Asp Phe Asn Pro Asn Lys Asp Gln Trp
158 50 55 60
160 Pro Glu Ala Asn Gln Val Gly Ala Gly Ala Phe Gly Pro Gly Phe Thr
161 65 70 75 80
163 Pro Pro His Gly Gly Leu Leu Gly Trp Ser Pro Gln Ala Gln Gly Ile
164 85 90 95
166 Leu Thr Thr Val Pro Ala Ala Pro Pro Ala Ser Thr Asn Arg Gln
167 100 105 110
169 Ser Gly Arg Gln Pro Thr Pro Ile Ser Pro Pro Leu Arg Asp Ser His
170 115 120 125
172 Pro Gln Ala Met Gln Trp Asn Ser Thr Thr Phe His Gln Ala Leu Leu
173 130 135 140
175 Asp Pro Arg Val Arg Gly Leu Tyr Phe Pro Ala Gly Gly Ser Ser Ser
176 145 150 155 160
178 Gly Thr Val Asn Pro Val Pro Thr Thr Ala Ser Pro Ile Ser Gly Asp
179 165 170 175
181 Pro Ala Pro Asn Met Glu Asn Thr Thr Ser Gly Phe Leu Gly Pro Leu
182 180 185 190
184 Leu Val Leu Gln Ala Gly Phe Phe Leu Leu Thr Arg Ile Leu Thr Ile
185 195 200 205
187 Pro Gln Ser Leu Asp Ser Trp Trp Thr Ser Leu Asn Phe Leu Gly Gly
188 210 215 220
190 Ala Pro Thr Cys Pro Gly Gln Asn Ser Gln Ser Pro Thr Ser Asn His
191 225 230 235 240
193 Ser Pro Thr Ser Cys Pro Pro Ile Cys Pro Gly Tyr Arg Trp Met Cys
194 245 250 255
196 Leu Arg Arg Phe Ile Ile Phe Leu Phe Ile Leu Leu Leu Cys Leu Ile
197 260 265 270

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RAW SEQUENCE LISTING

DATE: 09/08/2006

PATENT APPLICATION: US/10/529,749

TIME: 08:55:25

Input Set : A:\10529749.txt

Output Set: N:\CRF4\09082006\J529749.raw

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199 Phe Leu Leu Val Leu Leu Asp Tyr Gln Gly Met Leu Pro Val Cys Pro
200      275      280      285
202 Leu Leu Pro Gly Thr Ser Thr Thr Ser Thr Gly Pro Cys Lys Thr Cys
203      290      295      300
205 Thr Ile Pro Ala Gln Gly Thr Ser Met Phe Pro Ser Cys Cys Cys Thr
206 305      310      315      320
208 Lys Pro Ser Asp Gly Asn Cys Thr Cys Ile Pro Ile Pro Ser Ser Trp
209      325      330      335
211 Ala Phe Ala Arg Phe Leu Trp Glu Trp Ala Ser Val Arg Phe Ser Trp
212      340      345      350
214 Leu Ser Leu Leu Val Pro Phe Val Gln Trp Phe Val Gly Leu Ser Pro
215      355      360      365
217 Thr Val Trp Leu Ser Val Ile Trp Met Met Trp Tyr Trp Gly Pro Ser
218      370      375      380
220 Leu Tyr Asn Ile Leu Ser Pro Phe Leu Pro Leu Leu Pro Ile Phe Phe
221 385      390      395      400
223 Cys Leu Trp Val Tyr Ile
224      405
227 <210> SEQ ID NO: 3
228 <211> LENGTH: 27
229 <212> TYPE: DNA
230 <213> ORGANISM: Artificial Sequence
232 <220> FEATURE:
233 <223> OTHER INFORMATION: Description of Artificial Sequence: Primer
235 <400> SEQUENCE: 3
236 gccggtaccg cgagcttacc agttctc 27
239 <210> SEQ ID NO: 4
240 <211> LENGTH: 27
241 <212> TYPE: DNA
242 <213> ORGANISM: Artificial Sequence
244 <220> FEATURE:
245 <223> OTHER INFORMATION: Description of Artificial Sequence: Primer
247 <400> SEQUENCE: 4
248 gccctcgagg aaactaagtt tcttggt 27
251 <210> SEQ ID NO: 5
252 <211> LENGTH: 30
253 <212> TYPE: DNA
254 <213> ORGANISM: Artificial Sequence
256 <220> FEATURE:
257 <223> OTHER INFORMATION: Description of Artificial Sequence: Primer
259 <400> SEQUENCE: 5
260 gccctcgaga ccatggacat tgaccgcgtat 30
263 <210> SEQ ID NO: 6
264 <211> LENGTH: 39
265 <212> TYPE: DNA
266 <213> ORGANISM: Artificial Sequence
268 <220> FEATURE:
269 <223> OTHER INFORMATION: Description of Artificial Sequence: Primer
271 <400> SEQUENCE: 6

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RAW SEQUENCE LISTING

DATE: 09/08/2006

PATENT APPLICATION: US/10/529,749

TIME: 08:55:25

Input Set : A:\10529749.txt

Output Set: N:\CRF4\09082006\J529749.raw

272 gccgagctcc taaacgcgtc cacattgaga ttcccgaga

39

VERIFICATION SUMMARY

PATENT APPLICATION: US/10/529,749

DATE: 09/08/2006

TIME: 08:55:26

Input Set : A:\10529749.txt

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